

**CITY OF BELMONT
MEMORANDUM**



TO: Planning Commission

FROM: Damon DiDonato, Principal Planner

VIA: Carlos de Melo, Community Development Director

SUBJECT: December 15, 2020 - Study Session & Community Outreach Meeting
Amendment of Wireless Telecommunication Facilities Regulations
Project No.: PA2020-0062; Location: Citywide

Purpose

The City Council has directed staff to update the Belmont wireless facilities regulations to be consistent with current state and federal laws. The purpose of this Study Session and Community Outreach Meeting is to: 1) Explain what applicable modifications have occurred to state and federal laws; 2) Identify what updates are needed to the City regulations for wireless facilities to address the modifications to state and federal laws; and 3) accept comments and answer questions from the Planning Commission, interested parties and the general public about the project.

Recommendation

No action is requested of the Planning Commission for the Study Session and Community Outreach Meeting; no resolution or ordinance has been prepared, and the Commission is not required to comment on the project. Staff recommends that the Commission conduct the meeting by:

1. Accepting the written report and presentation by staff
2. Commenting and asking staff questions
3. Allowing for public comment and questions

The Study Session and Community Outreach Meeting will be recorded, and will become part of the public record for the project. Next steps will include the preparation of an Ordinance for review and recommendation by the Planning Commission at a Public Hearing, and introduction and adoption of an Ordinance by the City Council.

Background

The City's wireless telecommunications regulations (Section 25 of the Belmont Zoning Ordinance) were established in 1987, and last updated in 1996. This is not generally a long period of time for a zoning regulation to go unchanged; however, much has changed in terms of cell phone ownership, usage, technology, and distribution in the last 24 years, and state and federal regulations for wireless facilities have undergone significant modifications since 1996.

Ownership Trends

According to the Pew Research Center, approximately 62% of Americans owned cellular telephones (cell phones or mobile phones) in 2002, and the rate of American cell phone ownership increased to 96% by 2019. The share of Americans that own smartphones increased from 35% in 2011, to approximately 81% in 2019.¹

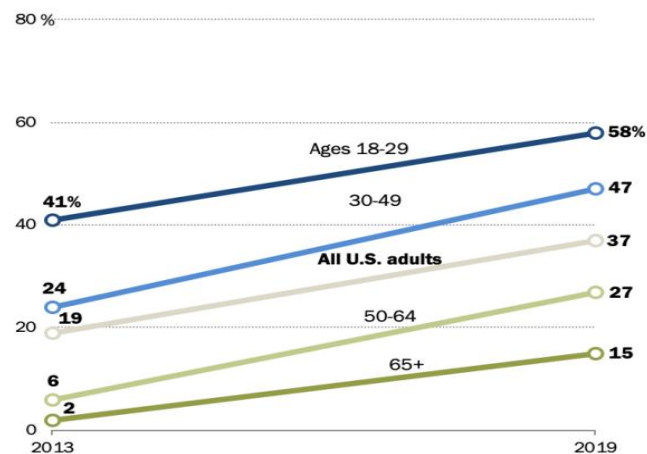
Usage & Internet Access

Initially, cell phones were used primarily for phone calls; however, the introduction of the smart phone provided additional functionalities, and cell phones are now used in a wide variety of ways (i.e., research, shopping, transportation services, social media, email, entertainment, etc.), which are largely dependent on internet access, either via a wireless broadband connection or cellular antenna.

Americans are increasingly likely to access the internet using their cell phones (smartphones). Between 2013 and 2019, the number of Americans opting to mostly use a smartphone when accessing the internet has increased from 19% to 37%. This preference has increased for all age groups, and has become especially likely for younger adult Americans (58% of Americans between the ages of 18 and 29 report they mostly go online through a smartphone, according to the Pew Research Center).²

Americans of all ages are increasingly likely to say they mostly go online using their smartphone

% of U.S. adults who say they mostly go online using a cellphone



Note: Respondents who did not give an answer or gave other responses are not shown.
Source: Survey of U.S. adults conducted Jan. 8-Feb. 7, 2019. Trend data from previous Center surveys.

"Mobile Technology and Home Broadband 2019"

PEW RESEARCH CENTER

¹ [Pew Research Center - Internet Fact Sheet](#)

² [Broadband Use](#)

Technology & Distribution

The technology and distribution methods for cellular service have changed to address the increased demand for mobile internet access. The use of broadband internet services with a wireless connection (Wi-Fi) has increased, and can be obtained in many inside locations. In addition, cellular service providers have introduced small cell wireless antennas (sometimes called nodes), which are low-powered antennas that provide cellular and data coverage to smaller geographic areas, supplementing the larger cellular network.

The introduction of small cell antennas into the traditional, larger (macro) cellular network, provides for a more evenly distributed cellular network, because a greater number of small cell antennas can be located closer to end users. The larger macro cell antennas are typically located on towers or on the rooftops of buildings. Multiple carriers can affix transmitters to these towers (collocate), and operate on their respective frequencies; however, large towers are not sufficient to provide fiber-optic like service over the air to large numbers of customers in suburban and urban communities.

Traditional & Small Cell Distribution



Small cell antennas that carry large amounts of data have been used to fill the gaps in coverage for 4G cellular services, and are anticipated to play an even greater role for the distribution of 5G Services.³ These antennas can be located on existing utility poles and lights, or on newly installed poles in areas located alongside sidewalks, and roadways, known as the public right-of-way. They can also be located on the exterior of buildings, and inside large buildings such as stadiums or malls. The antennas have a limited range of approximately 200 feet, and thus many more of them are required to provide data service to a geographical area.

³ In the field of mobile communications, a “G” stands for generation, which generally refers to a change in the fundamental nature of the service. The 4G network is the fourth generation of [broadband cellular network](#) technology, and 5G is the fifth generation. The 4G network is approximately 10 times faster than the preceding 3G network. Due to the use of a higher frequency for data transfer, a 5G network is approximately 50-100 times faster than the preceding 4G network.

State & Federal Regulations

The City's consideration of wireless facility projects is governed by Belmont Zoning Ordinance (BZO) Section 25.7; however, the City's authority to regulate wireless telecommunication facilities has diminished over time, as various state and federal regulations have been adopted that preempt or limit the City's Ordinance. The key state and federal laws that preempt or limit the City's Wireless Telecommunications Ordinance are summarized in Attachment I. A brief overview of the impact of these laws on the City's ability to regulate telecommunication facilities is provided below.

Radio Frequency Exposure⁴ – Wireless telecommunications facilities emit radio frequencies ("RF") that have the potential to cause adverse health effects in people; however, the federal government has developed RF emissions exposure standards, and projects that conform to these standards are not considered to have a significant impact on public health. The federal government has also adopted regulations that prohibit the City from either conditioning or denying projects based on RF concerns, if the proposed facility complies with federal RF standards.

Development Standards – Current state and federal laws generally require that the City treat wireless facilities like a utility, particularly if these facilities are located adjacent to roadways and sidewalks (i.e., within the public right-of-way). The City has very limited authority to regulate (i.e., establish development standards) for the operation, location, and appearance of wireless facilities.; however, the extent of the City's ability to regulate wireless facilities varies, depending on the type of wireless facilities that are being proposed, where the facilities are proposed to be located, and if the facilities are new installations or additions to existing installations.

Regulatory Authority & Application Types⁵

There are basically four types of wireless facility applications, as follows:

- *New "Macro" Site* – new installations of towers, and large cellular antennas and equipment on buildings where no previous sites have been approved. The City has the most authority to regulate new macro sites, although federal law prohibits the city from denying projects if the applicant has shown that both: 1) The facility is necessary to fill a significant gap in the applicant's wireless network; and 2) The facility is the least intrusive means of filling the service gap. Again, the City may not prohibit cellular towers due to RF concerns.
- *Small Cell Wireless* – new installations of low-powered antennas that operate on a higher frequency, and provide cellular and data coverage to smaller geographic areas. Federal law and the latest FCC Rulings, place significant limitations on the City to regulate small wireless facilities that are placed on existing or new utility poles and streetlight standards located in the public right-of-way, and private property.

The City may adopt some limited design standards and performance standards for small cell wireless facilities, and must approve them if these standards are met. Adopted design or location standards

⁴ Belmont requires that applicants demonstrate compliance with federal RF standards as part of the development review process (i.e., an RF report and/or follow up testing is required). This requirement will continue under any revised regulations.

⁵ Application types are further described in Attachment H, and in the City's Wireless Facility Regulation FAQs.

cannot effectively prohibit small cell wireless facilities. For example, a design standard requiring an antenna to be smaller than is technically feasible would effectively prohibit a project. In terms of the location of small cell wireless facilities, preferences can be identified by the City, but these facilities cannot be prohibited from any particular zoning district or area (even residential areas and schools).

- *Co-located facilities (6409(a))* – additions or modifications to existing wireless facilities that meet specific standards referenced in Section 6409(a) of the Middle-Class Tax Relief and Job Creation Act of 2012, 47 U.S.C. § 1455(a).

If a wireless project is 6409(a) “eligible” than it must meet certain standards identified in federal law and subsequent FCC Rulings, that characterize it as collocation or modification that is not a substantial change. These additions or modifications must be to a facility that was legally established (i.e., permitted), and they cannot violate a previous condition of approval or completely “defeat” any concealment methods that were approved as part of the original installation. A request to modify an eligible facility that meets all of these standards must be approved by the City.

- *Co-located facilities* – additions or modifications to existing wireless facilities that do not meet specific standards referenced in Section 6409(a). The City has some limited discretion related to aesthetics of these types of facilities, but is limited in terms of location; however, collocated facilities are usually less impactful than the establishment of new facilities even when they exceed 6409(a) eligibility.

Procedures & Timing

Timeframe for Action

State and federal law set specific time frames for action on wireless facility applications (i.e., a “Shot Clock”). Except in instances when the City has entered into a tolling agreement with the applicant, the review authority must approve, approve with conditions, or deny wireless facility projects within the time frames provided in the following table. Applicants are not required to enter into tolling agreements so typically the City is bound by these deadlines.

Wireless Facilities Permit Type – Timeframe for Action

Application Type	Timeframe
6409(a) modification applications	60 Days
Small wireless facilities – collocated or attached to existing support structures	
Collocation of non-small cell wireless facilities	90 Days
Installation of non-small cell wireless facilities on existing support structures	
New small wireless facilities that include new support structures	
New non-small cell wireless facilities that include new support structures	150 Days

The timeframes for action begin at application submittal, and are “tolled” or paused when an application has been found to be incomplete. The City has 30 days to determine whether an initial application is complete. If the application is not complete, the city must provide a written incomplete notice to the applicant that cites any application defects.

After the applicant responds, if the application remains incomplete for any reasons stated in the original incomplete notice, the city must issue a second incomplete notice within 10 days (for 6409 and small cell applications). In all cases, the city cannot deem an application incomplete for reasons not cited in the first notice. Time frames are not tolled to allow for noticing or appeals or Planning Commission or Council hearings.

Conclusion- Impact of State/Federal Law

The state and federal laws discussed above include both substantive and procedural limitations on the City’s authority. Collectively, these limitations require the City to process more applications, with less information, and in less time.

Outreach to Carriers

The technology for wireless telecommunication facilities is constantly evolving. Thus, staff conducted a preliminary outreach meeting with wireless facilities carriers, prior to drafting the City’s update to wireless facilities regulations. The intent of the outreach meeting was to: 1) obtain a better understanding of current and future wireless facility technologies (i.e., technical and design feasibilities); and 2) determine how these technologies could be regulated within the City’s wireless telecommunication rule structure, consistent with state and federal law (i.e., draft regulations that do not result in an effective prohibition of wireless facilities). The carriers in attendance at the meeting provided verbal and written comments that were reviewed by the City’s outside legal consultant, and considered by staff, prior drafting the update to wireless telecommunications.

Legal Consultation

The legal considerations for wireless regulations are very complicated. Review of development standards for wireless facilities include many subtleties, and interpretations of state law and federal law that are beyond the capabilities of City planning staff. As such, staff consulted with outside legal counsel prior to initially drafting the updates of the City’s wireless telecommunication regulations to ensure that the proposed regulations are within the City’s legal authority.

In addition, staff has continued to consult with outside legal counsel and revise the draft wireless regulations as modifications to state or federal law have occurred, via subsequent legislation or case law (i.e., the FCC Order in June 2020, and the Ninth District Court Ruling). The current version of draft regulations discussed below and within the report attachments have been reviewed by outside legal counsel, and they have been found to be consistent with the most current state and federal laws. No additional changes have been recommended by the consulting attorney.

Wireless Telecommunications Ordinance ⁶

Approach to Wireless Telecommunications Ordinance

Given the regulatory landscape, and changes in cell phone ownership, usage, technology, and distribution, staff proposes that the City's Wireless Telecommunication Ordinance should include the key modifications discussed below.

Goals

The goals of the draft modifications to the City's Wireless Telecommunication Ordinance are to:

- 1) Comply with state and federal law; and,
- 2) Establish robust wireless services to meet the needs of the community, while minimizing the potential aesthetic impacts of wireless facilities, to the extent permitted by law.

Process Efficiencies

Numerous process efficiencies are proposed to be implemented in order to meet state/federal mandated deadlines, including:

- *Frontloaded Application Requirements* – Collocated small cell facilities and 6409 eligible applications would need to include concurrent applications for building permits and encroachment permits, as applicable. Pre-approval of a master license agreement (MLA) would also be required for facilities within the public right of way that are located on city light poles.
- *Level of Review & Appeals* - Collocated small cell facilities and 6409 eligible applications will be reviewed by the Public Works Director (facilities within the public right-of-way) or the Community Development Director (facilities outside of the public right-of-way). Deadlines ("Shot Clock") for review of these types of applications do not allow time for public hearings or appeals. Any denials of small cell facilities or Section 6409(a) Eligible applications will be without prejudice.

Other types of applications will be reviewed at levels that are commensurate with the potential aesthetic impacts of the project and the City's ability to review the application within the prescribed state/federal deadline including recognition of the City's limited authority. A draft table of potential review and appeal authorities is included in **Attachment A**.

- *Public Hearing, Notice, & Neighborhood Outreach* – The ability for the City to provide notice, hold a public hearing, and conduct neighborhood outreach is limited by state and federal laws, and processing deadline requirements. Draft tables of potential noticing, public hearing and neighborhood outreach requirements is included in **Attachment B**.

⁶ The wireless telecommunication provisions and standards in this report are in a draft form, and were prepared by City Staff in advance of the public review process. The adoption of final wireless telecommunication provisions and standards will include review by the Belmont Planning Commission and City Council at public hearings. Opportunities for public testimony will also be provided, prior to adoption of provisions and standards.

Findings⁷

There are four basic types of wireless facility applications: 1) Small Cell Wireless; 2) Section 6409(a) Eligible; 3) Collocated, but not 6409(a) Eligible; and 4) New Macro Sites. The findings for approval of a Wireless Facilities Permit are based on the permit type, the type of equipment proposed, and the requirements of state and federal law. Certain findings are universal, such as the requirement to identify legal right to use of the property where the facilities would be located (see **Attachment C**).

Preferred Locations & Facility Types

The City allows wireless facilities within all areas, but establishes a list of preferred and discouraged locations. The preferred location list identifies locations that are the least likely to result in aesthetic or environmental impacts, and the discouraged location list identifies locations that are more likely to result in aesthetic or environmental impacts. The preferred location list is applicable to new facilities and substantial changes to existing facilities; the discouraged location list is applicable to new facilities.

The City identified a list of preferred facility types and attachments standards. The list is arranged from the most preferred to the least preferred. The most preferred facilities are generally less visible, or in some way camouflaged to reduce their potential aesthetic or environmental impacts. Tables of preferred locations and facility types are provided in **Attachment D**.

Setbacks – Height – Encroachments

In general, the setbacks and height for building-mounted wireless facilities need to be consistent with those of the primary building on site; however, exceptions are permitted for completely concealed or camouflaged facilities. Exceptions to height standards are also identified for pole-mounted facilities, which account for antenna length, and the PG&E separation requirement from electrical lines.

Completely concealed or architecturally integrated features are permitted to encroach into the public right-of-way in the same measure as architectural features and signs. Setbacks, height, and encroachment standards are included in **Attachment E**.

Performance Standards

There are general performance standards for all types of applications (noise, lighting, signage, etc.), and specific performance standards applicable only to small cell wireless projects. The performance standards are fairly generic, and include measures to preserve public safety, health and welfare (see **Attachment F**).

Design Standards

There are different types of design standards included in the draft regulations, including preferred design standards, and general design and placement standards.

- Preferred Designs for wireless facilities are listed from most to least preferred, based on their potential aesthetic impacts with the most preferred design having the least impact, and vice versa. Generally, these standards range from facilities that are completely concealed from public view due to their location

⁷ Findings are the standards or criteria used to evaluate a project and make a decision. In most cases, findings need to be made in the affirmative in order to approve a project. Certain types of wireless facility projects (small cell wireless within the public right-of-way, and 6409 applications) must be approved if all of the required findings can be made in the affirmative.

or architectural incorporations (i.e., antennas located behind existing parapet walls or hidden within cupolas, steeples, chimneys and water tanks), to facilities that are visible but incorporate technically feasible camouflage or design treatments. Pre-approved designs are listed as a placeholder within this category; these specific design standards would be established for small cell wireless and collocated facilities at a later date.

- General Design & Placement Standards are also listed for pole designs, design preservation, concealment, and collocation. Location preferences are identified for the placement of facilities on private property and within the public right-of-way; these preferences are based on potential aesthetic impacts, with the most preferred locations having the least impacts, and vice versa.

Pole mounted design standards are provided for both City light poles and wooden poles. Initially, specific dimensions were used for these standards (obtained from the graphics and exhibits in the City's adopted Policy for small wireless facilities in the public right of way); however, technology continues to change and there are differences between 4G and 5G technologies that are yet to be revealed. Thus, caveats were included within these standards to address technical feasibility.

Ground and pole mounted equipment preferences and design standards are included that also include dimensions obtained from the graphics and exhibits in the adopted policy for small cell wireless facilities (caveats were included within these standards to address technical feasibility). Signage, fencing and landscaping standards were also included within this section (see **Attachment G**).

Questions & Answers

Answers to frequently asked questions (FAQs) are provided in Attachment J. Staff and the City Attorney will be available to answer questions during the Study Session/Community Meeting. Questions that require additional analysis by staff or consultation with the consulting attorney will be answered at the subsequent Planning Commission public hearing for the project.

Attachments

- A. Approval Authority & Appeals
- B. Notice & Outreach
- C. Findings
- D. Preferred Locations
- E. Setbacks – Height – Encroachments
- F. Performance Standards
- G. Design Standards
- H. Definitions – Applications – Procedure
- I. Legal Framework Summary for Wireless Facilities
- J. FAQs